CHECKLIST ENVIRONMENTAL ASSESSMENT

Proposed Action: Approve Drilling Permit (Form 22)
Project/Well Name: Hostetler 20-54-21A-4-1
Operator: Petro-Hunt, LLC

Location: SENE Section 21 T20N R54E
County: Dawson MT; **Field (or Wildcat):** Wildcat

Proposed Project Date: 07/21/2021

I. DESCRIPTION OF ACTION

Petro-Hunt, LLC plans to drill a vertical oil well in the Red River Formation 11,425' MD / TVD. Surface casing to be set at 1,788'.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS, OR INDIVIDUALS CONTACTED

Montana Bureau of Mines and Geology, GWIC website (Dawson County Wells).

US Fish and Wildlife, Region 6 website
ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES MONTANA COUNTIES, Dawson County

Montana Natural Heritage Program Website (FWP)
Heritage State Rank= S1, S2, S3, T20N R54E

Montana Cadastral Website
Surface Ownership and surface use Section 21 T20N R54E

Montana Department of Natural Resources MEPA Submittal

2. ALTERNATIVES CONSIDERED

No Action Alternative: The proposed well would not be drilled.

Action Alternative: Petro-Hunt, LLC would have permission to drill the well.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

3. AIR QUALITY

Long drilling time: 5-7 days drilling time.
Unusually deep drilling (high horsepower rig): Triple derrick drilling rig to drill a vertical oil well in the Red River Formation, 11,425' MD / TVD.

Possible H2S gas production: Yes, slight H2S possible from Mississippian Formations.
In/near Class I air quality area: No Class I air quality area nearby.
Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211. AQB review.

Comments: No special concerns – using triple derrick rig to drill to 11,425' MD / TVD. If there are no gas gathering systems nearby, associated gas can be flared under Board Rule 36.22.1220.

4. WATER QUALITY

Salt/oil-based mud: Yes, will drill with oil-based invert drilling fluids for the main hole. Surface casing hole will be drilled with freshwater and freshwater mud system, Rule 36.22.1001.
High water table: No high-water table anticipated at this surface location.

Surface drainage leads to live water: No, nearest drainage is an unnamed ephemeral drainage about 3/10 of a mile to the west.

Water well contamination: None, surface hole will be drilled with freshwater and freshwater drilling fluids to 1,788', steel surface casing will be run and cemented to surface from 1,788' to protect any ground and surface waters. No water wells within a ½ mile radius.

Porous/permeable soils: No, sandy silty clay soils.
Class I stream drainage: No.
Groundwater vulnerability area: NA.

Mitigation:
__ Lined reserve pit
_X_Adequate surface casing
__ Berms/dykes, re-routed drainage
_X Closed mud system
_X_ Off-site disposal of **solids**/liquids (in approved facility)
___ Other:

Comments: Steel surface casing will be run to 1,788' and cemented to surface to protect ground water. (Rule 36.22.1001).

5. SOILS/VEGETATION/LAND USE

Vegetation: Grassland.
Stream crossings: None.
High erosion potential: Small erosion potential on small cut and small fill slopes, a cut of up to 6.7' and a fill of up to 1.4', required.
Loss of soil productivity: No, location to be restored after drilling, if nonproductive. If productive, unused portion of this drillsite will be reclaimed.

Unusually large wellsite (Describe dimensions): No, well site 300' X 300'.
Damage to improvements: Slight surface use appears to for grazing.
Conflict with existing land use/values: Slight.

Mitigation

__ Avoid improvements (topographic tolerance)
__ Exception location requested
_X_ Stockpile topsoil
__ Stream Crossing Permit (other agency review)
_X_ Reclaim unused part of wellsite if productive
__ Special construction methods to enhance reclamation

Access Road: Access will be over existing road, #523. A new access of 10,013' will be built into location.

Drilling fluids/solids: A closed loop system will be used for this well. The cuttings will be hauled to Oaks Disposal site and disposed.

6. HEALTH HAZARDS/NOISE

Proximity to public facilities/residences: No residences within ¼ a mile radius.
Possibility of H2S: Yes, slight H2S possible from Mississippian Formations.
Size of rig/length of drilling time: Triple derrick rig. 5-7 days drilling time.

Mitigation:

_X_ Proper BOP equipment (Adequate surface casing cemented to surface, Rule 36.22.1001, with working BOP stack should mitigate any problems, (5,000 psig annular and double ram), Rule 36.22.1014.)

__ Topographic sound barriers
__ H2S contingency and/or evacuation plan
__ Special equipment/procedures requirements
__ Other:

7. WILDLIFE/RECREATION

Sage Grouse: NA
Proximity to sensitive wildlife areas (DFWP identified): None identified.
Proximity to recreation sites: None identified.
Creation of new access to wildlife habitat: No.
Conflict with game range/refuge management: No.
Threatened or endangered Species: Species identified as threatened or endangered in Dawson County are the Pallid Sturgeon, Whooping Crane, Piping Plover, and the Northern Long-eared Bat. The Montana Natural Heritage Program lists one (1) species of concern: the Preble's Shrew.

Mitigation:

__ Avoidance (topographic tolerance/exception)

__Other agency review (DFWP, federal agencies, DNRC Trust Lands)
__ Screening/fencing of pits, drillsite
__ Other:

Comments: Private grazing surface lands. There may be species of concern that may be impacted by this wellsite. We ask the operator to consult with the surface owner as to what he would like done if a species of concern is discovered at this location. The Board of Oil & Gas has no jurisdiction over private surface lands. No concerns.

IV. IMPACTS ON THE HUMAN POPULATION

8. HISTORICAL/CULTURAL/PALEONTOLOGICAL

Proximity to known sites: None identified.

Mitigation

__ avoidance (topographic tolerance, location exception)
__other agency review (SHPO**,** DNRC Trust Lands, federal agencies)

Other:

9. SOCIAL/ECONOMIC

Substantial effect on tax base

__ Create demand for new governmental services
__ Population increase or relocation

Comments: No concerns.

IV. SUMMARY

No long term impacts expected. Some short term impacts will occur, but can be mitigated.
I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

EA Checklist Prepared By:	**Name:**	John Gizicki	**Date:**	07/15/21
	Title:	Compliance Specialist		